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ABSTRACT

This paper reports on a computer conferencing pilot project initiated by the Consortium for the Development of Professional Materials for Vocational Education and developed at the Center on Education and Training for Employment at Ohio State University. The report provides an introduction to computer conferencing and describes the stages of the pilot project, including the general orientation conducted by a consultant from the Academy for Educational Development, the coordination of other units from within Ohio State University, and the monitoring of the pilot testing at the University of Arkansas, Temple University, the University of Central Florida, and Ohio State. The computer conferencing workshop, staff development program, and accompanying program guide developed by the Consortium are also described. An illustrated "participate map" outlining computer conferencing procedures and sponsor and vendor acknowledgements are appended. (8 references) (GL)

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Computer Conferencing: Distance Learning That Works

AMERICAN VOCATIONAL ASSOCIATION

AVEPDA - 13-C Convention Center
Orlando, Florida

Topic #1

Computer Conferencing: Vehicle for Time and Cost
Effective Inservice Education

Monday, December 4, 1989
10:30-12:00 noon

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Introduction

How about a class where the members are situated miles apart, may never meet face to face, "attend" at any hour of the day or night, yet have regular discussions and keep up with the course work assigned by the instructor? Welcome to computer conferencing--a new wrinkle in communication technology. Some businesses, like Exxon Chemical Company, use it to keep their specialists around the globe in touch with each other. Research teams use it for high-level discussions. Now, a research center at The Ohio State University has developed a pilot project adapting computer conferencing for long distance classroom use.

This pilot project is this year's initiative of the Consortium for the Development of Professional Materials for Vocational Education. It was developed at the Center on Education and Training for Employment in Columbus, Ohio and is being field tested in Arkansas, Florida, and Pennsylvania. These states are members of the consortium. This paper explains computer conferencing and the development of the pilot project underway at these three states.

The Consortium was organized in 1979 for the purpose of developing high-quality curriculum materials needed for training leadership personnel in vocational and technical education in the United States, and to pilot test and demonstrate new instructional delivery technologies and strategies.

Computer Conferencing: How it Works.

Procedures for using computer conferencing are very simple and user friendly. The student or faculty member is given an account on the system and signs on to read messages. Simple commands enable a person to write messages, retrieve past messages, and read incoming mail as it appears in the electronic "mailbox." All messages are numbered within each topic and are easily retrievable. A branching system enables one to create separate sub-topics within any conference. Each person may also write private messages to other individuals.

The communication is asynchronous. In other words, a resource person (instructor) who likes to work from home at 1:00 a. m., can type information into the system for use by students who prefer to study afternoons or evenings, from their homes or from their job locations. In this way, the students and the resource person do not have to be at the same place or working at the same time. The discussions take the form of an electronic seminar. Increased student "time-on-task" often results. This medium is a basic example of how instantaneous and interactive telecommunications can collapse time and space.

Computer conferencing may enable a group of students who otherwise would find it difficult to participate in class due to the demands of jobs, families, time, or widespread geographic locations to be part of a supportive, interactive college classroom structure. In addition to the advantage of increased access and convenience offered by this electronic seminar format, students can receive individualized tutoring by exchanging private messages with their resource persons (professors). They can create subtopics by setting up "branching" conferences with other students in the course in order to discuss and debate issues related to the primary subject matter of the course. They can also transmit their course assignments electronically.

Typically, students join their classmates in computer conferences based on specific course work. The initial conference is organized by the professor or resource person who shapes and motivates student participation in various learning activities. Conference members receive, write, and send messages to the conference which, in turn, can be read and reviewed by all. Together they submit notes, debate issues,

clarify concepts, and ask questions in a collaborative network of shared information. The resource person and students explore and expand upon the print-based and media-based course learning materials through interactive discussion and analysis.

Computer conferencing supports the two kinds of communication that provides motivation in most classroom environments. First, there is the private communication which occurs between the instructor and the student. The system permits private messages to go back and forth between the two. In addition, the "public" communication that commonly occurs in a classroom between faculty and students--or in a study group, or even in the hallway outside of the classroom--can be replicated. For example, an assignment such as the following might be made:

Students are divided into groups electronically, not physically. Each group is a number of students who may be scattered anywhere within reach of the computer conferencing system. Students in each group discuss among themselves a particular aspect of a specific problem. The group forms its own branch conference and conducts a discussion. When each group reaches its conclusions, it will register a point of view (a majority or minority report) that can then be examined, reviewed, and responded to by everyone in the course.

Computer conferencing has several important advantages over electronic mail. A menu system with simple help commands is immediately available. This makes computer conferencing more user friendly than electronic mail. A person can move back and forth easily between personal messages and conference notes without using the additional commands required for electronic mail.

All messages go into a data base that is easily retrievable by the topic, by the number of the note, by the person who either sent or received the message, by time periods, or by a combination of all these. Because the notes (conferences) are organized by topic, they are easy to locate and retrieve.

Adaptation from Business to Higher Education

The Consortium's procedure has involved training a core of resource persons (professors), who are in turn currently putting the idea into practice at their respective Universities. In essence, it is a communication idea taken from the corporate sector and adapted for long distance teaching at the college level. It will be used by resource persons who are required to visit nondegreed teachers to provide inservice education in regions of their states. This technique will be used to greatly reduce their seminar travel time and cost.

The importance of this communication idea is that it is a simple and relatively inexpensive alternative communication tool for teaching. It transcends time and space. This is because neither instructors or students have to be at the computer at the same time due to its database capabilities. It is accomplished by a computer conferencing program described by microcomputer people as either a video-text program, group ware, or an advanced version of electronic mail. This pilot project develops computer conferencing into an interactive-text teaching tool.

Pilot Project Stages

1. The first stage started with a general orientation about computer conferencing in October, 1988. The consortium sponsored a consultant from the Academy of Educational Development to conduct the initial orientation seminar in January, 1989. The consultant provided initial instruction for the participating personnel at CETE in the OSU Health Services Library's microcomputer laboratory where all stations have modems. Subsequently, Consortium staff developed computer conferencing workshops print and media training materials.

2. Another stage of the pilot project involved coordinating the work of other units from within The Ohio State University. The following groups were involved in this process:

- a. The Instruction and Research Computer Center (IRCC) provided technical assistance for conducting the training.
- b. The Center for Teaching Excellence agreed to serve as an independent third party evaluator.
- c. The Vocational-Technical Education section of the Department of Educational Studies, College of Education served as a co-sponsor.

3. The final stage involved monitoring the computer conferencing pilot testing at locations in three states where the resource persons involved have held their own workshops or are currently developing the computer conferencing out-reach program. The pilot testing is taking place at the following institutions:

- a. Vocational Education, College of Education, University of Arkansas, Fayetteville, AR
(Conducting a class spring quarter 1989)
- b. Department of Curriculum, Instruction and Technology in Education, Temple University, Philadelphia, PA
(Conducted two workshops for their staff)
- c. Department of Educational Studies, College of Education, The Ohio State University, Columbus, OH.
(Prepared to start next fall)
- d. Department of Instructional Programs, College of Education, University of Central Florida, Orlando, FL
(Plans are in the process of being materialized)

4. The second National Computer Conferencing Resource Person Workshop was held during October 30 and 31, 1989. The location was at the CompuServe Headquarters classroom in Columbus, Ohio. Fifteen people from four states and a guest from Manitoba, Canada completed the training.

Introduction to Computer Conferencing

A Computer Conferencing workshop and staff development program has been developed by the Consortium for the Development of Professional materials for Vocational Education for use in training others. The Consortium's workshop provides the basics needed to begin operating this electronic communication system known as Computer Conferencing. Workshop lessons show how to use a microcomputer as a terminal to access and store information that can be arranged in this conference format.

The guide starts by explaining the commands needed to get the microcomputer communicating on the telephone lines. The next steps explained are how to get connected to the Participation program through CompuServe. Once this procedure is mastered the process may seem very simple, but the three or four entries can seem very difficult at first if a person is not used to operating a microcomputer.

The main objective of the first workshop is to help instructors learn these steps, microcomputer commands, and helpful procedures necessary to use Participate for computer conferencing. The microcomputer operates in different stages called modes. These modes of operation are subject to certain commands to communicate, dial, connect, save, print, or disconnect. It takes practice to learn these commands. It may come quicker to a person who is experienced in microcomputer operations than for a person new to microcomputers, but knowing these modes is the key to understanding conferencing.

For more details about these commands, refer to the Participate Map attached to the end of this paper.

The Consortium also has developed a beginner's guide that compiled the various microcomputer programs and techniques into an easy and understandable handbook. It is a guide designed to help someone who is not familiar with microcomputer operations. It focuses on the basic fundamentals necessary to operate a microcomputer without having had any experience with microcomputers. The guide does not replace the handbooks or documentation provided by the vendors. The purpose is to supplement those handbooks or

documentations in order to help the beginner get started and communicate without having to use three different texts.

Four microcomputer operations are illustrated in this guide. Only three can be used by an operator. The reason for this is that the Red Ryder communication program is what this pilot project uses on the McIntosh microcomputer, whereas, Procomm is the communication program being used for the IBM or Compatible microcomputers. These programs have their unique commands to dial or access to the CompuServe service, as well as save, print or send pre-prepared data.

CompuServe is a commercial carrier and storage company that makes it possible for messages to be delivered to the microcomputers through connection with the telephone lines. CompuServe charges for two types of services. One charge is a fee for the amount of computer time used. The other charge is a monthly rate at a cost-per-record for the storage service. These details are explained in the member kit provided for each Source subscriber.

The commands for using CompuServe are few. They primarily consist of answering questions in order to connect to the network. This means a number to connect to the host system, an identification to get to the proper account, and a secret password for security protection. When these commands are completed, the request to be connected to the Participation program enters you into the Computer Conferencing mode. Go Parti is the key word CompuServe uses for this request and is the abbreviation for Participate. Participate is a registered company name for computer aided group communications which include electronic mail, bulletin boards, computer conferencing, inquiry networking, and on line balloting.

CompuServe service will close out all other options if the instructor or resource person paying for this Computer Conferencing system does not want students in this pilot project to select the news, weather, sports, games, or other options that Source is in the business to provide for an hourly fee. If these options are available, a varied list of menus are shown when the instructor enters CompuServe. Then the right menu has to be found to access the Parti option. Once Parti has been typed or accepted, the system is ready for communicating "conference style".

It is at this stage that information can be received or delivered through a messaging system. This vending service or Parti has the capability to manage messages by sorting and storing. The sorting is available through a process known as conferencing. These messages are stored in the sequence they are received within each named conference. Individual conference members are allowed to join and to communicate as the monitor or instructor desires.

An attachment shows the Participate map of commands categorized in four modes of operation: action on inbox, action of message, action on topic, and action options when there are no inbox notes. The scratchpad is the name of the mode used when messages are either being typed or uploaded from an ASCII (text only) word processing file.

These features make computer conferencing unique among the video-text family of microcomputer communication programs. If you wish to obtain more information about using computer conferencing as a long distance teaching tool, contact the Center on Education and Training for Employment at Ohio State University in Columbus, Ohio. References about using computer conferencing as an instructional tool is listed on the next page.

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Participate Map

Action on Inbox =>

READ	read inbox notes
WRITE	compose a note or start a topic
PROFILE	list waiting inbox notes
ACTION	see what else you can do in PARTICIPATE
MODIFY MENU	switch menus off (or on)
HELP	get fuller explanation of inbox commands

SEGMENT NAME (# OF NOTES)

- | | |
|-----------------------|---|
| 1. Urgent Notes (0) | } |
| 2. Personal Notes (3) | |
| 3. "PRODUCTION" (3) | } |
| 4. "ROLLOUT" (2) | |
| 5. "COMMITTEE" (7) | } |
| 6. "PRICELIST" (1) | |

(No Inbox Notes...)

Action on Message # =>

READ	re-read this message
WRITE	respond to this message
PROFILE ADDRESSEES	list all addressees of this note
KEEP	keep this note in inbox for future reference
FORWARD	forward this note to someone
OTHER	list other command options

Action on Topic =>

READ	re-read this note or specified note(s)
KEEP	keep note for future reference
WRITE	create a note for this topic
JOIN	join this topic for automatic updates
LEAVE	avoid receiving updates in this topic
PROFILE MEMBERS	list those who have joined this topic
PROFILE BRANCHES	list subtopics branching from this topic
FIND "text"	locate notes containing the specified text
OTHER	list other command options

Action =>

READ "topic"	go to the topic named in quotes
WRITE	compose a note or start a topic
DELETE	delete a note you've written
PROFILE TOPICS	list general topics available to you
PROFILE ONLINE	see which other users are currently online
PROFILE MYSELF	find out which topics you've joined
FIND SINCE	recover notes sent to you earlier
INBOX	check inbox for incoming notes
OTHER	list other command options
QUIT	exit PARTICIPATE after checking inbox

Scratch
pad

.DISPLAY	review your note
.OPEN	start a new topic
.SEND	send your note
.CLEAR	delete your note
.QUIT	leave scratchpad
.HELP	get fuller explanation

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Workshops are conducted by the Consortium for the Development of Program Materials for Vocational Education

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